

Response dated 05/13/2005  
Response to Office Action mailed 01/13/2005

Application No. 10/038398

### REMARKS

The Office Action of January 13, 2005 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested in view of the amendments and remarks presented in this response.

Claims 1-26 are pending in this application. Claims 9-10 and 16-24 have been previously withdrawn. Claims 27 and 28 have been added and claims 3 and 14 canceled. Claims 1, 5, 9, 10, 11, and 25 have been amended.

#### Claim Rejection Under 35 USC §102

Claims 1-6, 8 and 25-26 stand rejected under 35 USC §102(e) as being anticipated by Lee et al., U.S. Patent No. 6,027,742. Reconsideration and withdrawal of this rejection is respectfully requested.

Independent claims 1 and 25, as amended, relate to a biocompatible implant of polybutyleneterephthalate (PBT), polyethyletherketone (PEEK) and combinations thereof and to a method of repairing or replacing tissue utilizing such an implant. The implant provides load-bearing support during growth of new bone structure. PBT and PEEK implants have enhanced mechanical strength. This is demonstrated, for example, by Example 3 of the application in which it is illustrated that the strength and modulus for a PMMA sample was significantly lower than for a PBT sample. (See page 25, lines 21-28, and FIGS. 7 and 8 of the present application). Dependent claims 2-6 and 8 depend from claim 1, and claim 26 depends from claim 2.

Lee et al. do not disclose the invention as presently claimed. Instead, Lee et al. disclose composite materials containing a poorly-crystalline apatitic calcium phosphate (PCA calcium phosphate). Lee et al. also disclose that the implantable bioceramic composite also may include a non-erodible or poorly resorbable material, including polyethylene, polymethylmethacrylate, carbon fibers, polyvinyl alcohol, poly(ethylene terephthalate)polyamide and bioglass; in addition to the PCA calcium phosphate. Notably, Lee et al. do not teach or disclose an implant that includes PBT and/or PEEK, as presently claimed. Lee et al. thus fail to teach every element of the invention of claims 1-6, 8 and 25-26 as required under 35 U.S.C. § 102(b).

#### Claim Rejections Under 35 USC §103

Claims 11-15 stand rejected under 35 USC §103(a) as being unpatentable over Lee et al. in view of Vyakarnam et al., U.S. Patent No. 6,534,084. Claim 7 stands rejected under 35 USC

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103§(a) as being unpatentable over Lee et al. in view of Boltong, U.S. Patent No. 5,605,713.  
Reconsideration and withdrawal of these rejections is requested.

Independent claim 11, as amended, relates to a biomedical implant of a porous structure formed of PBT, PEEK and combinations thereof. Claims 12-15 depend from claim 11. Claim 7 depends from claim 1.

As discussed above, Lee et al. fail to disclose, teach or suggest a biocompatible implant that includes PBT and/or PEEK, as presently claimed. Neither Vyakarnam et al. nor Boltong suggest the implant as claimed and do not provide any teachings to cure the deficiencies of Lee et al. Vyakarnam et al. disclose an interconnected open cell porous foam. Boltong discloses calcium phosphate cements for use as biomaterials. Accordingly, Lee et al., Vyakarnam et al. and Boltong, either alone or in combination, do not disclose, teach or suggest the invention of claims 7 and 11-15, and claim 7 and 11-15 are not obvious.

In view of the above, reconsideration and allowance of the pending claims are respectfully requested.

#### CONCLUSION

In view of the above amendments and remarks, prompt reconsideration and full allowance of the claims pending in the subject application are respectfully requested. As all rejections having been addressed, Applicants respectfully submit that the instant application is in condition for allowance and respectfully solicit prompt notification of the same.

The Commissioner is authorized to debit or credit our Deposit Account No. 19-0733 for any fees due in connection with the filing of this response.

If the Examiner should have any questions, the Examiner is invited to contact the undersigned at the number set forth below.

Date: May 13, 2005

Respectfully submitted,

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